

Incident Risk Assessment Worksheet				1. Incident Name/Number		2. Location			
Identification of Hazards and Risk Assessment				Klondike West OR-RSF-000354		Klondike West Zone, Oregon (Agness, OR)			
				3. Name and Title of Analyst		4. Date			
				Michael Cook, Brad Lidell & Ivan Cupp		Sunday September 9, 2018			
5. Pre-Control				6. Control or Abatement Action (Engineering, Administrative, PPE, Avoidance, Education, etc)		7. Post-Control			
8. Location	9. Hazard	10. Hazard Probability	11. Severity Code	12. RAC	Actions (double-click in cell then click alt + enter to add a line)	13. Hazard Probability	14. Severity Code	15. RAC	16. Acceptable (Yes/No)
All	Aerial Ignition	Likely B	Catastrophic I	Critical	~ Follow Aerial Ignition Plan and the RMA for aerial ignition.	Rarely D	Catastrophic I	Moderate	Yes
All Divisions and Groups	Helicopter Operations	Likely B	Catastrophic I	Critical	~ Stay clear of all bucket drops when suppression actions are in place and allow 1 minute prior to re-entry. ~ Ensure a ground contact is identified and relayed to ATGS and/or the responding air resources. ~ Monitor A-G communications. ~ Follow aviation safety guidelines in IRPG (Blue pages) and IHOG.	Rarely D	Catastrophic I	Moderate	Yes
All Divisions and Groups	ATV/UTV use	Occasional C	Catastrophic I	Serious	~ Ensure equipment is inspected and safe to use. ~ Restrict UTV's to max width of 50' on ATV trails due to width and severe sloped conditions. ~ Ensure operator is trained and certified to operate. ~ All riders must have a manufacturer's provided seat and seatbelt. ~ Ensure operator and other riders have proper PPE according to the Redbook and/or RMA... Meet forest helmet requirements. ~ Question if it is mission critical.	Occasional C	Critical II	Moderate	No
All Divisions and Groups	Driving & Traffic	Frequently A	Catastrophic I	Critical	~ Practice "Defensive Driving" techniques traveling on all roads and city streets. ~ Use spotters when backing. ~ Honk horn to alert personnel when backing. ~ Keep clutter off dash and inside cab. ~ Follow Driving LCES (Lights, Chock blocks, Emergency brake, Seat belts. ~ Always use headlights. ~ Yield to pedestrians and bicycles. ~ Observe posted speed limits. ~ Use the 3 second rule for following distance when driving. ~ Use chock blocks, turn wheels into hill. ~ Avoid distractions (eating, cell phones, radio). ~ Ensure that windshields are kept clean of dust and bugs. ~ Review vehicle Road Construction procedures in IAP, travel at accepted speed limits and defensively. ~ Assess road conditions for wet or slick conditions to avoid accidents or resource damage. ~ Use tactical broadcast for roads identified in division 204 special instructions.	Occasional C	Critical II	Moderate	Yes
All Divisions and Groups All Road Ways	Steep Terrain & Rolling Debris	Frequently A	Critical II	Critical	~ Maintain 8'-10' spacing when working & walking. ~ Don't work above any personnel. ~ Be on the lookout for rolling rocks, debris, or burning material. ~ Evaluate necessity to send personnel in areas with limited access. ~ Post lookouts (IRPG pg 7). ~ Utilize Risk Management Process, IRPG Pg 1.	Occasional C	Critical II	Moderate	Yes
All Divisions and Groups	Wildlife & Livestock	Occasional C	Critical II	Moderate	~ Watch out for wildlife & livestock inside fire area and along roadways. ~ Clean up all debris and trash during each operational period to avoid attracting wildlife and livestock. ~ If possible and time allows have livestock owners move livestock from fire area.	Occasional C	Critical II	Moderate	Yes
All Divisions and Groups	Extreme Fire Behavior	Likely B	Catastrophic I	Critical	~ Provide good briefing as shown on the back cover of the IRPG. ~ Share weather and fire behavior observations with all relevant personnel. ~ Identify & assess hazards, develop controls & make decisions, implement controls, supervise & evaluate. ~ Establish and update LCES. ~ Follow 10 Fire Orders and consider 18 Watchouts. ~ Establish "Trigger Points" to withdraw. ~ Use "Risk Management" process prior to engaging in suppression actions, refer to page 1, IRPG.	Occasional C	Critical II	Moderate	Yes
All Divisions and Groups	Hazard Trees	Likely B	Catastrophic I	Critical	~ Identify and avoid snags. Removal should be with falling module or equipment. ~ Follow "Hazard Tree Safety" guidelines, IRPG page 22-23. ~ Mitigate hazards by flagging off or removing dangerous snags. ~ In areas that work must be performed, post lookout or spotter, especially in mop-up areas. ~ Don't park vehicles or take breaks in high concentrations of hazard trees. ~ Establish trigger points for disengagement during high wind events. ~ Remember that the hazard zone extends a minimum of 2-1/2 tree heights.	Occasional C	Critical II	Moderate	Yes
All Divisions and Groups	Power Utilities	Likely B	Significant III	Moderate	~ Notify all personnel of down electrical lines. ~ Refer to the IRPG page 24-25 for Power Line Safety. ~ Always treat downed wires as energized. ~ Identify and avoid high tension transmission lines. ~ Identify and avoid high pressure natural gas lines. ~ Identify and avoid damaged gas service near structures. ~ Be aware of utility restoration in your work area.	Rarely D	Critical II	Minor	Yes
All Divisions and Groups	Heavy Equipment Operations	Occasional C	Catastrophic I	Serious	~ Ensure communications are established with operators. ~ Use hand signals if other communications are unavailable. ~ Maintain a 50'-100' exclusion area around equipment and increase it to 1-1/2 times tree height when in timber. ~ Use a spotter when backing. ~ Avoid working below heavy equipment. ~ Assess road surface for wet or slick conditions to avoid accidents or resource damage ~ Scout access route prior to committing lowboy vehicle to unpaved roads.	Rarely D	Critical II	Minor	Yes
All Divisions and Groups	Unplanned Public Interaction	Occasional C	Critical II	Moderate	~ Be alert to non-fire personnel in areas with suppression personnel. ~ All non-fire personnel will be escorted while on fireline. ~ Post lookouts to in areas with public to avoid conflicts with mission tasks. ~ Ensure adequate signage/barricades are placed on all access roads that are closed to the public. ~ Ensure sufficient security to restrict access to exclusion area.	Rarely D	Critical II	Minor	Yes
All Divisions and Groups	Medical Extraction (ground >3 hours)	Likely B	Critical II	Serious	~ Utilize the Medical Incident Report to request medical transportation and to relay vital medical information to dispatch. ~ Identify approved adequate extraction points and reassess, as needed. ~ Ensure adequate ALS is in appropriate locations to respond. ~ Consider air extraction, if available.	Rarely D	Critical II	Minor	Yes
All Divisions and Groups	Heat Related Illness (HRI)& Dehydration	Rarely D	Catastrophic I	Moderate	~ Drink Fluids throughout operational period (6-8 qts/shift). ~ Maintain water/electrolyte ratio of 3 to 1. ~ Carry extra water on line and cache water at drop points. ~ Take Frequent breaks, minimum of 10 minutes every hour. ~ Allow out of area resources time to acclimatize before expecting peak performance. ~ Recognize symptoms of HEAT RELATED ILLNESS which include. o Lack of energy o Headaches, dizziness o Lack of rest o No hunger, poor eating habits o Hot skin, and lack of sweating	Rarely D	Critical II	Minor	Yes
All Divisions and Groups	Indirect Fireline	Likely B	Critical II	Serious	~ Post lookouts, identify escape routes and safety zones (IRPG pg. 7). ~ Review "Strategy/Indirect Attack" (IRPG pg. 83).	Likely B	Significant III	Moderate	Yes
All Divisions, Groups and Helibase	Firing Operations & Devices	Likely B	Critical II	Serious	~ Only personnel trained in the use of each device will be authorized to use firing equipment. ~ Ensure all personnel are aware of firing operation that may affect them. ~ Wear appropriate PPE. ~ Ensure aerial/ground ignition plans have been adequately developed and personnel are briefed. ~ Maintain LCES.	Likely B	Significant III	Moderate	Yes
Spike Camps	Spike Camp	Likely B	Significant III	Moderate	~ Keep a clean camp. ~ Ensure communications are in place. ~ Review and observe "Line Spike" considerations (IRPG pg. 95).	Likely B	Significant III	Moderate	Yes
All Divisions and Groups	Fireline Hazards	Likely B	Critical II	Serious	~ Do not work directly above or below personnel during firing and mop-up operations. ~ Watch for falling and rolling debris on steep slopes. ~ Alert crew personnel of rolling debris by yelling to affected individuals. ~ Position debris that could roll vertically on slope. ~ Avoid stepping over debris that could roll by walking around object. ~ Avoid radiant heat by wearing appropriate PPE correctly. ~ Use correct tool for task assigned. ~ Follow power line safety protocol as outlined on page 24 in IRPG. ~ Flag and isolate all HAZMAT and alert all personnel working in Division. ~ Follow WUI recommendations on page 12-13 in IRPG.	Likely B	Significant III	Moderate	Yes
All	Firefighter & Public Smoke Exposure	Likely B	Significant III	Moderate	~ Review and follow Smoke Hazards and Mitigation, IRPG Pg 30 and Smoke and Transportation Safety, IRPG Pg 31. ~ Identify homes and structures with private parties remaining behind the evacuation. ~ Identify personnel responsible for contacting private parties. ~ Use warning lights and provide traffic control on roadways during smoky and night operations. ~ Rotate crews out of smoky areas during firing and mop-up operations. ~ Contact Communications when firing operations are initiated. ~ Slow down use defensive driving and ensure lights are on.	Likely B	Significant III	Moderate	Yes
All Divisions and Groups	Line Construction	Likely B	Critical II	Serious	~ Ensure lookouts have a good view of resources constructing line and the fire. ~ Follow downhill checklist. ~ Utilize good anchor points. ~ Utilize cup trenches, as necessary. ~ Patrol line. ~ Reassess safety zones and escape routes. ~ Follow IRPG Pgs 9 & 84.	Occasional C	Significant III	Minor	Yes
All Divisions and Groups	Chain Saw Operations	Frequently A	Critical II	Critical	~ Follow "Hazard Tree Safety" guidelines, IRPG page 22-23. ~ Look up, Look down, Look around for hazard tree indicators. ~ Only fell and buck trees within your expertise, and training. ~ Follow "Procedural Felling Operations" on page 85 in IRPG. ~ Do not fall trees during high wind events. ~ Ensure proper use of all required PPE.	Occasional C	Significant III	Minor	Yes
All Divisions and Groups	Heavy Dead & Down Fuel Loading	Occasional C	Critical II	Moderate	~ Watch footing. ~ Allow for additional time to reach safety zones. ~ Post lookouts (IRPG pg. 7).	Occasional C	Significant III	Minor	Yes
All	Personal Hygiene	Occasional C	Significant III	Minor	~ Don't share personal items such as water bottles, communication devices, and eating utensils. ~ Wash hands before meals and after use of rest room facilities.	Occasional C	Significant III	Minor	Yes
All Divisions and Groups	Mines	Occasional C	Significant III	Minor	~ Inquire local resources for information on location and specifics on all mining operations. ~ Patrol line.	Occasional C	Significant III	Minor	Yes
All Divisions and Groups	Night Operations	Likely B	Significant III	Moderate	~ All resources should see their assigned areas in the daylight. ~ Adequate briefing to include all hazards not recognized at night. ~ Be very alert to areas of hazard trees. ~ Never work alone. Periodically check on personnel (accountability), especially driving.	Occasional C	Significant III	Minor	Yes
All Divisions and Groups	Poisonous Plants	Occasional C	Significant III	Minor	~ Identify and Avoid hazard areas. ~ Launder clothing. ~ Shower frequently.	Occasional C	Significant III	Minor	Yes
All Divisions and Groups Helibase	Pumps	Likely B	Significant III	Moderate	~ Always wear appropriate hearing protection. ~ Position personnel far enough away from pump to hear instructions on radio. ~ Keep all fuel >4' from creek and pump to reduce fire hazard and spill. ~ Rotate personnel every hour to limit exposure to high decibels of sound from pump. ~ Allow pumps to cool for 5 minutes prior to re-fueling to reduce fire hazard.	Occasional C	Significant III	Minor	Yes
All Divisions and Groups	Mid-slope Fireline	Occasional C	Significant III	Minor	~ Utilize cup trenches, as necessary. ~ See IRPG, Pg 84, Line Construction.	Occasional C	Significant III	Minor	Yes
All Divisions and Groups	Initial Attack	Likely B	Critical II	Serious	~ If delegated or requested ~ Follow IA procedures ~ Provide local briefing for local protocols. ~ Coordinate with Operations ~ See IRPG front cover for Size Up Report.	Occasional C	Significant III	Minor	Yes
All Divisions and Groups	Downhill Line Construction	Occasional C	Critical II	Moderate	~ Ensure lookouts have a good view of resources constructing line and the fire. ~ Follow downhill checklist. ~ Utilize good anchor points. ~ Utilize cup trenches, as necessary. ~ Patrol line. ~ Reassess safety zones and escape routes. ~ Follow IRPG Pgs 9 & 84.	Occasional C	Significant III	Minor	Yes
All Divisions and Groups	Safety Zones are being constructed	Occasional C	Critical II	Moderate	~ Recognize the need for a safety zone. ~ Follow guidelines in IRPG, pg. 8.	Occasional C	Significant III	Minor	Yes
All Division and Groups	Structure Protection & HAZMAT	Occasional C	Critical II	Moderate	~ Review "Wildland Urban Interface" Watch outs, IRPG page 12. ~ Use "Structure Assessment" checklist, IRPG pages 13-16. ~ Follow "HAZMAT Incident Operations", IRPG, Pgs 36-41.	Occasional C	Significant III	Minor	Yes
All Divisions and Groups	Unburned Area/Reburn Potential	Likely B	Significant III	Moderate	~ Monitor weather. ~ Base actions upon observed and predicted fire behavior. ~ LCES Checklist (IRPG pg. 7). ~ Look Up, Down and Around (IRPG pg. 3-4).	Occasional C	Significant III	Minor	Yes
All Divisions and Groups	Illicite and Legal Marijuana Grow Operations	Occasional C	Critical II	Moderate	~ Recognize the indicators of a grow operation. ~ Avoid the entire area of the operation, if possible. ~ Contact Communications to notify LOFR or SECCM that law enforcement is needed. ~ Anticipate possible hostile and armed individuals.	Occasional C	Significant III	Minor	Yes
All	Bees, Ticks, Mosquitoes	Frequently A	Catastrophic I	Critical	~ Canvas crew members for those with known allergic reactions to stings. ~ Ensure crew members have medication pens if needed. ~ Perform daily self inspection. ~ Use repellent as necessary. ~ Advanced Life Support, multi-dose epi and airway protection. ~ Keep affected area clean and bandaged. ~ Be extra careful when eating and/or drinking to avoid stings to mouth and throat.	Occasional C	Significant III	Minor	Yes
All Divisions and Groups Helibase	Lack of or Incorrect Use of PPE	Occasional C	Critical II	Moderate	~ Always wear appropriate PPE which includes: o Eye Protection o Hard Hat o Gloves o 8" Leather non-skid boots o Always wear all nomex o Fire Shelter o Hearing protection when working around chainsaws, pumps, and heavy equipment. ~ Additional PPE as dictated by local conditions and environment.	Rarely D	Significant III	Negligible	Yes
All Divisions and Groups	Span of Control / Lack of Supervision	Occasional C	Critical II	Moderate	~ Continue to place orders, even after frequent Unable to Fill, for middle management positions, i.e Taskforce Leaders. ~ Designate these ordered positions as a "critical need" on the ICS 209. ~ Accept competent trainees in lieu of fully qualified until position is filled. ~ Assign up to 2 trainees under a fully qualified in nearby area for a short duration. ~ Utilize other fully qualified overhead for a short duration, such as Safety Officers.	Rarely D	Significant III	Negligible	Yes
ICP/Base Camp	ICP Protection	Rarely D	Significant III	Negligible	~ Follow ICP Tsunami evacuation plan. ~ Use pedestrian cross walks to cross roads and be alert for traffic when walking in town.	Rarely D	Significant III	Negligible	Yes
All Divisions Helibase	Air Operations	Occasional C	Catastrophic I	Serious	~ Follow "Aviation Watch-Out Situations" on IRPG, page 46. ~ Don't plan on air resources for medical transport or resupply. ~ Refer to page 58, IRPG for directing bucket drops. ~ Ensure positive communication with all air resources.	Rarely D	Significant III	Negligible	Yes
All	Fatigue & Over Exertion	Occasional C	Critical II	Moderate	~ Drink 1 quart of water each hour during and after work. ~ Rotate crews out of smoky areas. ~ Set a reasonable work pace and allow adequate rest breaks while on the project. ~ Stagger work crews start time to limit fatigue. ~ Use buddy system to monitor personnel of heat related and fatigue issues. ~ Follow work / rest guidelines. ~ Minimize personnel extensions to UTF positions; order fresh resources to reduce fatigue.	Rarely D	Significant III	Negligible	Yes